

Appl. No.: 10/618,499
Amdt. dated February 11, 2005
Reply to Final Office Action of Dec. 14, 2004

I. AMENDMENTS TO THE CLAIMS:

The following listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A building article having a smooth, low-gloss surface prepared by
 - (1) impregnating a lignocellulosic material with an isocyanate resin material;
 - (2) removing excess isocyanate resin from the impregnated lignocellulosic material by impinging air at a high flow rate upon the impregnated lignocellulosic material;
 - (3) polymerizing the resin by applying water to the impregnated lignocellulosic material, the water being at a temperature sufficient for polymerization; and
 - (4) removing the water from the polymerized resin-impregnated lignocellulosic material.
2. (Original) The building article of claim 1, wherein the impregnated lignocellulosic material is substantially non-conductive.
3. (Original) The building article of claim 1, wherein the lignocellulosic material comprises material selected from the group consisting of medium density fiberboard, high density fiberboard, oriented strand board, particle board, hemp, sisal, cotton stalk, wheat, straw, bamboo, jute, salt water reeds, palm fronds, flax, groundnut shells, hard woods and soft woods.
4. (Original) The building article of claim 1, wherein the building article comprises a veneer, sheet or panel.
5. (Original) The building article of claim 1, wherein the building article comprises a building component.

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6. (Original) The building article of claim 5, wherein the building component comprises a door component.
7. (Original) The building article of claim 5, wherein the building component comprises a subfloor component.
8. (Original) The building article of claim 5, wherein the building component comprises a roofing substrate component.
9. (Original) The building article of claim 5, wherein the building component comprises a soffit component.
10. (Original) The building article of claim 5, wherein the building component is adapted for marine construction.
11. (Original) The building article of claim 1, wherein the building article comprises a fence component.
12. (Original) The building article of claim 1, wherein the building article comprises a recreational equipment component.
13. (Original) The building article of claim 1, wherein the building article comprises a component of a sign.
14. (Original) The building article of claim 1, wherein the building article comprises furniture.
15. (Previously Presented) The article of claim 16, wherein said impregnated lignocellulosic substrate is substantially non-conductive.

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16. (Currently Amended) An article comprising a pre-formed lignocellulosic substrate impregnated with a polyisocyanate material, wherein the impregnated lignocellulosic substrate comprises a smooth, low-gloss surface.

17. (Previously Presented) The article of claim 16, wherein the impregnated lignocellulosic substrate further exhibits increased strength over an un-impregnated lignocellulosic substrate.

18. (Previously Presented) The article of claim 16, wherein the impregnated lignocellulosic substrate further exhibits an increased resistance to water over an un-impregnated lignocellulosic substrate.

19. (Previously Presented) The article of claim 16, wherein the lignocellulosic substrate comprises material selected from the group consisting of medium density fiberboard, high density fiberboard, oriented strand board, particle board, hemp, sisal, cotton stalk, wheat, straw, bamboo, jute, salt water reeds, palm fronds, flax, groundnut shells, hard woods and soft woods.

20. (Previously Presented) The article of claim 16, wherein the polyisocyanate material comprises methylene diphenyl diisocyanate or poly(methylene diphenyl diisocyanate).

21. (Previously Presented) The article of claim 16, wherein the polyisocyanate material comprises polyisocyanate resin.

22. (Previously Presented) The article of claim 16, wherein the lignocellulosic substrate comprises a veneer, sheet or panel.

23. (Previously Presented) The article of claim 16, wherein the article comprises a building component.

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24. (Original) The article of claim 23, wherein the building component comprises a door component.
25. (Original) The article of claim 23, wherein the building component comprises a subfloor component.
26. (Original) The article of claim 23, wherein the building component is adapted for marine construction.
27. (Original) The article of claim 23, wherein the building component comprises a soffit component.
28. (Original) The article of claim 23, wherein the building component comprises a roofing substrate component.
29. (Previously Presented) The article of claim 16, wherein the article comprises a fence component.
30. (Previously Presented) The article of claim 16, wherein the article comprises a recreational equipment component.
31. (Previously Presented) The article of claim 16, wherein the article comprises a component of a sign.
32. (Previously Presented) The article of claim 16, wherein the article comprises a furniture component.
33. (Previously Presented) The article of claim 16, wherein the substrate is impregnated by application of the polyisocyanate material upon the surface of the substrate with a nozzle.

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34. (Previously Presented) The article of claim 16, wherein the substrate is impregnated by soaking the substrate in the polyisocyanate material.

35. (Previously Presented) The article of claim 16, wherein the lignocellulosic substrate comprises a preexisting binder binding lignocellulosic material of the substrate.

36. (Previously Presented) The article of claim 35, wherein the preexisting binder is selected from the group consisting of a urea-formaldehyde resin, a phenol-formaldehyde resin, and a polyurea resin.

37. (Previously Presented) The article of claim 16, wherein the impregnated substrate is further impregnated with the polyisocyanate material by impinging air upon the surface.

38. (Previously Presented) The article of claim 16, wherein excess polyisocyanate material on the surface of the impregnated substrate is removed by impinging air upon the surface.

39. (Previously Presented) The article of claim 16, wherein the smooth, low-gloss surface of the impregnated substrate is polymerized by water.

40. (Previously Presented) The article of claim 16, wherein the substrate comprises a moisture content that is less than approximately 7% by weight after the substrate is dried and before the substrate is impregnated with the polyisocyanate material.

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41. (Currently Amended) ~~The article of claim 40,~~ An article comprising a lignocellulosic substrate impregnated with a polyisocyanate material,

wherein the impregnated lignocellulosic substrate comprises a smooth, low-gloss surface,
and

wherein the substrate comprises [[the]] a moisture content that is about 0.1 to 2.5% by weight after the substrate is dried and before the substrate is impregnated with the polyisocyanate material.

42. (Previously Presented) The article of claim 16, wherein the lignocellulosic substrate without impregnation of the polyisocyanate material has an initial water absorption value, and wherein the lignocellulosic substrate impregnated with the polyisocyanate material has a water absorption value that is less than or equal to approximately 80% of the initial water absorption value.

43. (Currently Amended) The article of claim 16, wherein the lignocellulosic substrate without impregnation of the polyisocyanate material has an initial water absorption value, and wherein the lignocellulosic substrate impregnated with the polyisocyanate material has a water gain absorption value that is less than or equal to approximately 23% of the initial water absorption value.

44. (Previously Presented) The article of claim 16, wherein the lignocellulosic substrate without impregnation of the polyisocyanate material has an initial water absorption value, and wherein the lignocellulosic substrate impregnated with the polyisocyanate material has a water absorption value that is less than or equal to approximately 14% of the initial water absorption value.